Kentucky Environmental Quality Commission
Kentucky Energy Strategy
Public Meeting

Meeting Minutes
March 10, 2005
Capitol Annex Room 125
Frankfort, Kentucky

EQC Commissioners Present
Lindell Ormsbee, Chair
Betsy Bennett, Vice Chair
Gary Revlett
Patty Wallace
Laura Knoth
Eugene Zick
Gordon Garner

Speakers/Representatives Present
Andrew McNeill, Chief of Staff, Commerce Cabinet
Rick Bender, Div. of Oil & Gas, Dept. of Mines & Minerals
Brad Stone, Div. of Waste Management
Rebecca Farris, Office of the Secretary, EPPC

EQC Staff Present
Leslie Cole, Executive Director
Erik Siegel, Assistant Director
Frances Kirchhoff, Executive Secretary

Open Meeting
Mr. Lindell Ormsbee, Chair of the Environmental Quality Commission opened the meeting at 1:00 p.m. There were approximately 20 people in the audience. ***The first order of business was to approve the minutes of the January 26 EQC meeting. A motion was made by Betsy Bennett, seconded by Gary Revlett, and passed unanimously.***

Mr. Ormsbee then introduced the first agenda item -- a review of the Kentucky Energy Strategy.

Last fall, Governor Fletcher convened a task force to create a strategy that would maintain the state's low-cost energy while developing its energy resources in an environmentally responsible manner. The result is a Kentucky Energy Strategy that includes a list of 54 recommendations ranging from energy conservation to promoting clean coal.

Mr. Ormsbee introduced Mr. Andrew McNeill, Chief of Staff with the Commerce Cabinet to review the Energy Strategy.

Kentucky Energy Plan - Andrew McNeill, Commerce Cabinet

Mr. McNeill gave a PowerPoint presentation to review the Energy Plan. He discussed that energy development, economic development and environmental quality are mutually inclusive goals and that the issues are not as decisive as they may seem. He noted that there is common ground that can be realized by those interested in energy development as well as the preservation of the environment. He spoke of mutually inclusive goals that are: energy development, (responsible development of Kentucky energy resources), economic development, (growth in the state) and environmental quality (proper attention to promoting a cleaner environment).

Mr. McNeill focused his discussion on clean coal technology. He reviewed an initiative that will provide a clean coal tax incentive with provides for a $2.00 ton tax credit. A matching fund will be created of $2 million to fund clean coal technology.

Questions and Answers

Q. Is the $2.00 per ton tax credit in any way linked to specific clean coal projects?
A. Yes, absolutely. The legislation is written so that the Environmental and Public Protection Cabinet (EPPC) has to certify a facility as a clean coal facility before they can apply for the credit. If you are not a clean coal facility meeting whatever guidelines we will establish then you will not be able to qualify for the $2.00 tax credit.

Q. So this will be a new certification program?
A. Yes and it will be administered by EPPC

Q. Can you talk a little more about renewable energy?

A. In the plan renewable energy is discussed. Two of those energy resources are biodiesel and ethanol. Use of biodiesel and ethanol can help clean up emissions from automobiles. Within the Governor's tax plan there was a tax incentive put into place to promote the production and consumption of biodiesel through the state. The incentive has been designed to drive biodiesel from production into the retail market so that consumers can have a greater opportunity to purchase biodiesel. There is a plant in Owensboro that is in the process of investing about $20 million in building a biodiesel plant in and the Governor has expressed his support for that. I think they are in the process of applying for an economic development incentive through the Cabinet for Economic Development.

We visited the ethanol plant in Hopkinsville during the energy task force meetings and are very interested in finding a way to expand the ethanol production capacity in Kentucky. I want to keep coming back to the mutually inclusive goals because you can realize the benefits of economic development, new jobs, and new investment value-added industry for Kentucky soy bean and corn growers. You can realize the benefits of responsible development of our energy resources and utilize alternative technologies to develop ethanol biodiesel which can enhance energy sector of the state and environmental quality. Biodiesel and ethanol are cleaner burning fuel. So you can realize the benefits from that.

We do have a recommendation in the energy plan that says the state should design incentives to promote but not mandate the utilization of renewable energy sources to enhance or diversify our electricity portfolio. We haven't determined exactly what an incentive package to promote but it is a goal of the energy plan and we think that if you put into place the right incentives then the electricity generation community will have the where-with-all and the technology to utilize renewables as they are generating electricity.

Q. On page 8 you show that in 1997 to 2002 the percentage of renewable energy jumped form 3.7 to 4.8. I wondered if any were more information what that was attributable to.

A. What is it attributable to—likely economics likely decisions being made by electricity producers to become more green. They understand that there is an aspect that their businesses demonstrate that they are committed to environmental quality. I think that is starting to make more sense not only from a public relations stand point but also from an economic standpoint. One thing that is important is that there is going to be significant growth in the utilization of renewable energy over the next 20 years. There will be a growth of 54 percent in terms of total energy consumption in the US. I think we need to keep that in perspective though. At the end of the day you may have a tremendous amount of growth but it is going to comprise of about 8 percent of total energy consumption. So while it is a worthwhile policy, unless there is a significant change that we can't foresee right now, the U.S. and the Kentucky will be reliant upon petroleum based fossil fuels for our energy. The question and the challenge is how do we keep it clean or make it cleaner. And I think clean coal technology and items like that are the wave of the future to make sure we can maintain lower cost but also keep things cleaner.

Q. I was disappointed that in the energy plan there want not more about renewable energy sources of solar and wind power. We have strip mine sites to put windmills row after row. Coal is not cheap (for the people who live there) because of all the destruction it causes. Cheap electricity should not be the main goal here.

A. I guess what the question is how you find the proper balance. You need to look at the benefits of coal that are accrued to all of Kentucky as well as the U.S. by assuring that we are utilizing energy resources available to the state and to the country.

Q. Are you doing anything with windmills? TVA is running about 15 windmills on a strip mine in Buffalo and Patterson mountains in Tennessee.

A. We have not developed a specific recommendation concerning this resource. TVA likely has a program where consumers can opt into the purchase of Green Power. Consumers that are willing to pay a little bit more to promote green power can opt into that. I'd certainly be willing to look into that because if you think about it, it then creates the right market incentive. It would give a clearer picture of what a renewable portfolio should look like.

Development of initiatives like this will be ongoing and conducted primarily through the Commerce and EPPC Cabinet. I think you are going to see that there is going to be a balance between what we are trying to achieve. There will be some discussion some issues and some disagreement but we are trying to achieve that proper balance. We would be willing to accept ideas from this commission on how we should develop this policy going forward.

Q. You show this decrease in NOx emissions for 2005 on page 5 and an incremental increase after that. What might be the reason for that?

A. These graphs are drawn from the Energy Report 2025 from the U.S. Department of Energy. I didn't pull out why you might expect to see that. It may be coal-fired generation coming on board.

Q. If they are using clean coal technologies, wouldn't you think this should be a net decrease?

A. The NOx increase in going to be reduced per unit but if you have a significant number of units that are being brought on board then perhaps in the aggregate it will lead to a slight increase.

Q. Will the Utilities Sanctions Council's recommendation be initiated through the Office of Energy Policy that is being created?

A. It will be administratively attached to the Finance and Administration Cabinet the Office of Energy Policy. We are in the process of going through the organizational side of things.

Q. Will the Utilities Sanctions Council members all be state government people?

A. As designed, it will be composed of just government agencies. But also I see it as being an opportunity for people who have ideas outside of state government to come to the Council and present those ideas so that is almost a forum or commission much like this is to get new ideas on how to approach these things.

Q. Are the matching grants just related to clean coal or can they be used for research related to coal mining.

A. Absolutely, it can be projects related to renewables, clean coal technology and items that the U.S. Department of Energy is offering through its research and development grants. Recently there was a renewable consortium that was formed through the Kentucky Division of Energy that is going to serve as a forum for universities to come together and put forth grants to pull down renewable energy Research and Development projects. Typically these grant programs require a match. You have to put up $500 thousand to pull down $2 or $3 million grant. What this fund is intended to do is to allow for the researchers to put forth their grants and realize that if the DOE

makes the award they can draw the resources from the R & D fund to make the match. So we utilize $500 thousand to receive $2 or $3 million; that's about a 5 to 6 to 1 match bring federal R & D into the state. That's a real win win.

Q. Can you discuss the recommendations in the report for natural gas, methane, and the infrastructure needs in the state?

A. As it relates to natural gas, it was brought to our attention that there is a significant amount of natural gas (primarily in Eastern Kentucky) that has been shut-in, meaning that there is note enough infrastructure to get the gas from the wells to the pipeline. One of the recommendations related to natural gas is to focus on the investment then the state's nature gas infrastructure—pipelines, storage capacity, distribution, etc. This will provide several benefits for the state. First you have the jobs that our tied to the production of gas in Eastern Kentucky. You have the severance tax which the state can realize from the severance of natural gas. One of the issues we are particularly interested in is how it relates to natural gas storage. As we all know, natural gas prices tend to fluctuate and have been higher the last several years. So if we can provide storage capacity of natural gas produced in Kentucky than you could smooth out some of the price fights.

We are also very interested in coal bed methane. In 2004, we passed a regulatory measure related to coal bed methane. We think there is an opportunity to utilize this resource and to generate again economic activity around it. There are some energy providers that are currently capturing methane gas as it comes off landfills. I think that makes perfect sense because it captures methane now being leaked into the atmosphere uses it as an energy resource.

Comment from Audience

LG&E -- Clarification of SO_2 vs. NOX emissions. SO2 emissions are capped for 48 continuous states. NOX are only capped in only 19 eastern states.

Comment from Audience

Kentucky Solar Partnership -- Share concerns of some EQC commissioner as to whether 'clean coal' is really clean. The mining of coal is a major problem. The potential for renewables is not acknowledged effectively. The solar energy industry association has issued a report called the PV roadmap which if implemented would bring the cost of solar electricity from quotable text to the cheapest source of electricity in the nation by 2015. There is the potential for solar to meet a very significant proportion of our energy needs if we make the investment. If we choose to put investments in coal and not solar, than we take a very different path. It is a matter of choice not a matter of technical feasibility. I would ask the task force to look more deeply into the potential for renewables and to use a renewable portfolio standard as a mandatory method to drive utility policy and bring renewables into the main stream. One final thought, the projections for the cheapness of coal I fear among other things that Kentucky is putting all its eggs in one basket and is not having a diversified or secure supply with the prospect of the Kyoto Protocol. With the prospect of carbon taxes, the projections of the feasibility of coal could be turned upside down. Those things need to be taken into consideration.

EQC Discussion

The commission discussed the energy plan and ***instructed EQC director to draft recommendation commending the plan but urging the task force to focus additional attention on renewable energy and energy conservation to diversify the state energy portfolio***.

Status of Oil and Gas Drilling in Kentucky, Rick Bender, Department of Mines and Minerals

EQC Chair Lindell Ormsbee next introduced Rick Bender, Director of Oil and Gas Conservation to discuss oil and gas production in Kentucky.

In his PowerPoint presentation, Mr. Bender said that Kentucky has had oil and gas drilling since 1818. Because of this long history, we have a tremendous number of wells drilled in the state (more than 200,000 wells are on file). Currently there are about 48,000 active and producing in the state of which 28,000 are oil wells, 17,000 are gas wells, 1,000 are oil and gas wells and 2,000 are wells which are primarily injection wells for water flood type of operations. At the current prices, this generates $600 million a year in revenue.

In 2004, Kentucky produced 94 PCF of gas generating more than $22 million in severance tax and 2.5 million barrels of oil which is a little bit more than $4 million in severance tax. In the past 10 years, Kentucky has had a leveling out of oil and gas permits but during the past 3 to 4 years we have had a steady increase in permitting activity. A limiting factor for increasing gas production in Kentucky is the infrastructure. A lot of companies have closed their doors or left the area due to low prices in the past. Drilling rigs are few and we are limited to what is currently in the area. If we had drilling rigs, we would be issuing more permits and there would be more wells being drilled. With oil prices around $38 a barrel in 1982, we issued 6 thousand permits that year. At $55 a barrel today we should be seeing more permitting. It is a matter of not having enough drilling rigs.

The oil and gas industry is not without its problems. We have a huge number of abandoned wells in the state. The wells are placed in violation, the bond is forfeited and the money goes into an abandoned well plugging fund. We have been doing this for the last 15 years. Some abandoned wells are leaking and some are not. When a well is found to be leaking, we get right on it through an emergency program and it is plugged within the next week. Right now we are plugging about 253 to 300 wells per year, with our goal to plug 300 wells per year. The oil and gas industry has slowed down during the 90s and the slow down has allowed us to shift our work load from inspection to plugging. Right now we have 18,000 abandoned wells on current list. There are about 2,500 wells that are not in violation but the bonds have been forfeited and 13,000 in the data base that have no bonding. All this adds up to a potential plugging liability of about $48 million if you factor in our average plugging cost that is about $2,000 per well. We have plugged 2,610 wells, and proposed to plug 334 if we have a good year we might make that 3,000 mark.

We transferred $1 million in the plugging account when it was established in 1990. Primarily what we try to do is operate on the interest. More can be done. The current bonding structure as it is now is probably the lowest in the country. We have individual well bonds which are based on depth of the well and if everyone operated on the individual well bonds that would be great and could be a good solution. Most operators in the state operate on a blanket bond and that is $10,000. You can have any number of wells under a $10,000 bond. Some are not a problem, but some have 200 or 300 wells under one bond and when business is bad, and they go out of business then the Commonwealth is stuck holding the 300 wells on $10,000.

The good thing about that is I don't have any collection costs. I have very little legal overhead trying to capture that money. Higher bonding and there are going to be fights against it if you are dealing with an insurance company or dealing with a bank. Typically when a company goes under, another company will pick up a lot of those wells. I don't want to give you impression that we are left holding those 300 wells. We'll have some of the wells, but other companies pick up those wells, put them under their bonds and continue to operate. But it is something that needs to be looked at. Obviously $10,000 is not enough to plug a large number of wells. Our typical plugging cost is $2,000 per well.

We would like to evaluate the current inventory of abandoned wells to see if they have any future use particularly with carbon sequestration. It goes hand in hand with clean coal technology. We have a large number of wells in Eastern Kentucky where the coal is being mined, clean coal plants would go in, the emissions could be sequestered back into the ground and possibly some of these abandoned wells that we have. Also that may enhance the recovery of the natural gas in coal seams.

Lastly, in more recent years we have tried to encourage abatement plans with companies. Given that prices are up and companies are making money we want to try to get them to plug their well while they can afford to do it. We have a number of programs going on with operators to build in an abatement plan as part of their normal operating procedures.

Questions and Answers

Q. Is coal bed methane being captured now or is that new?

A. It is relatively new to the state. We have about 5 wells in southeastern Kentucky that were drilled into coal seams that produced a small amount of coal bed methane. The large interest in the state right now is being driven in western Kentucky, the Illinois basin area. We have a number of large companies that have a huge coal reserve, Peabody and some others that have been looking at the potential of producing coal bed methane from their coal seams. We were able to get legislation passed for development of coal bed methane. The problem that existed for development and we thought was a deterrent for production was the ownership question; who owns the natural gas. Is it the oil and gas owner, is it the coal owner, or is it the surface owner. What the legislation did was to allow for the development of the resource and establish an escrow account and then the ownership question can be decided in the courts. What this legislation did was allow for the development. Since that time, through this past summer and fall, we have worked on a regulation package.

Q. Does something have to be done to get the gas funneled up?

A. With most oil and gas extraction typically there is a stimulation of some type. The coal needs to be fractured so that it creates a channel for the gas to move to the well bore.

Q. Does it ruin the ground water?

A. No, it doesn't ruin the ground water. You use fresh water to fragment the coal seal. There have been no documented cases where groundwater has been ruined.

Q. Do you have a projection of what the numbers are if we revved up the production of coal bed methane production in Kentucky?

A. I have not looked at that. Perhaps the geological survey has looked at that. It is impossible to tell right now. Also, it will be driven by the economics of what is there how far they space the wells apart.

Q. Are we talking hundreds or thousands of wells?

A. Potentially there could be thousands of wells.

Q. Is there any specific environmental impacts associated with coal bed methane production different from any other type of well?

A. One impact that has yet to be determined is not so much as suggested as far as ruining the groundwater, but typically impacting aquifers for domestic use. In order to produce coal bed methane you have to remove the water. So you have to de-water the coal seam. There are safeguards in the rules for looking at that and there are permitting procedures from another agency that will be required to look at that. The potential concern is that you might deplete a reservoir of its ground water.

Q. Does this produce brine water as a by-product?

A. Most coal bed methane production is very high quality fresh water. In some areas it could potentially higher Brackish water. Every coal seam is going to be a little different. Many coal seams have very good water. It is something we need to keep an eye on to be sure a resource is not lost or wasted.

Q. What is causing the shortage of drilling rigs?

A. A lot of drilling rigs left the area and went overseas. Companies have gone out of business. The industry will pick up.

Q. In 2004, about $22 million of tax paid on gas? Where do those funds go?

A. Severance tax goes into state's general fund. Half of the funds go back to the county where it originated.

Q. Has it ever been considered to use those funds to capping wells?

A. We would certainly like to have more funding. We'd love for the Commission to make some recommendations to get some funds. We need to take a harder look at the long term. Right now we are treading water. We are plugging 300 wells a year but I've got a lot of wells out there I've got to plug. The other concern I have is because of the lack of drilling rigs, there is also a lack of service companies. Service companies now are also the contractors that we use to plug abandoned wells.

Q. You have listed some things that can be done relative to you last slide. Do those constitute some things that EQC might consider relative to do some--type of recommendation or?

A. Possibly or help support it when we move forward with some of our initiatives. I have been working with the Commissioner of the Department of Natural Resources to get some bonding proposals and hopefully next year's session we will put forth some proposed legislation.

Q. Is there a reason you can't require abatement plans when you issue permits?

A. Currently we do not have authority to do that. It is another thing we may look at in our legislative proposals. We have really just been doing it on a voluntary basis right now.

Q. Of the ones that go out of business, how many get plugged and how many do you end up with?

A. We are treading water. We are plugging about 300 abandoned wells a year, but we are taking in about 300 new ones. I'm giving you numbers based on what we do. Some wells are plugged by the industry.

Q. In the last State of the Environment Report 100 bonds were released and 85 were forfeited.

A. And those could have been both blanket bonds and surety bonds. A blanket may cover a number of wells.

Q. So how does that happen that they can get a permit to drill but not come with some kind of closure?

A. There are requirements to plug the well (in the permit) but the only enforcement tool is to forfeit the bond. There are 13,000 plus wells in the database as active wells that have no bonding that were drilled prior to 1960. In our program, we plug a number of those wells too if they become an issue.

Q. How do you determine what wells to plug?

A. We do prioritize—all of our inspectors have a prioritization schedule—leaking is high on the list. I have only 16 inspectors that cover 120 counties. Three more will be hired this year. That is 3,000 to 10,000 wells per inspector. One inspector has 9 counties and some of those counties have some 9,000 wells.

EQC Discussion

The commission next reviewed the oil and gas drilling issues and needs. ***Based on discussion, the Commission instructed staff to draft a recommendation on bonds, abatement plans, additional support for funding and bad actors.***

Regulatory Review

The Chair next introduced Brad Stone with the Division of Waste Management. Mr. Stone discussed proposed regulations concerning Underground Petroleum Storage Tanks (401 KAR 42:260E and 401 KAR 42:260). One is an emergency regulation and one is the ordinary companion that will be filed with LRC.

The regulation has to do with the balance requirements for the petroleum storage tanks and environmental assurance fund which is the fund used to clean up leaking underground storage tanks and petroleum tanks across Kentucky. The emergency regulation and the ordinary regulation were filed with LRC on 2/17/05. There will be a public hearing on April 26, 2005.

The regulation changes the term "unobligated balance of the fund" to "cash balance" in section 11. This regulatory action simply allows us to consider that the cash balance which allows us in effect to accept applications to the fund without having to shut the fund down.

A motion was made by Betsy Bennett to approve 401 KAR 42:260 and seconded by Gene Zick. The motion passed unanimously with commissioners present voting.

Other Business

Leslie Cole, EQC Director reviewed EQC priorities and staff actions to date.

1. Toxic Pollutants
   - EQC held a forum on toxics at its Jan. 27 meeting.
   - Erik is close to completing an update the Toxic Air Pollutants Indicators. Under coal mining EQC priorities.
2. Energy
   - The EQC March meeting today is focusing on the energy plan and energy issues.
3. Sustainable Development
   - EQC Earth Day will focus on this topic. We have received 13 nominations from communities across Kentucky to date.
4. Coal Mining
   - EQC supported funding for independent water testing in Martin County related to the coal slurry spill which was approved in this session. The Martin County citizens will get about $150,000 filtered through EKU and Martin County Fiscal Court to do some independent water testing.
   - EQC will hold a public forum in May to hear the results of the Black Water Task Force.
5. Forestry
   - The final EQC forestry roundtable report was distributed to commissioners along with a draft letter transmitting it to the 40 members of the EQC forestry roundtable. EQC, through this letter, is asking them for their input on the report if they would support an EQC recommendation that the state convene a Forest Summit and develop an action plan to focus more attention on forestry resources in the state. EQC is suggesting that the action plan be developed by the Division of Forestry, Economic Development, Parks and others and look at the resources as a whole. ***Betsy Bennett made a motion that EQC send out this letter and Gary Revlett seconded the motion. The motion passed unanimously with all commissioners voting.***

Budget
A review of the EQC budget followed. Director Cole reported that EQC budget was approved by the 2005 legislature as follows:

2004-05 Appropriations
General fund $150,000
Restricted fund $100,900
2004-05 Expenditures
Personnel - $208,200
Operating - $42,700

2005-06Appropriations
General fund - $150,000
Restricted funds - $108,500
2005-06 Expenditures
Personnel - $214,600
Operating - $43,900

Commissioner Garner asked whether funding for the State of Environment report was provided. Ms. Cole said funds were not provided for printing the report or for staff resources to produce the report.

Next EQC Meeting
Due to a conflict with some commissioner the May EQC Black Water Public Forum date was changed to May 26 – 27. It will still be held at Jenny Wiley State Park.

Announcements
Betsy Bennett announced that there will be a forum on mercury pollution and public health at the University of Louisville, Humanities Building 7:00 p.m. tonight.

Commissioner Gordon Garner announced that on March 15 the second Green Partnership initiative in Lexington with the Lexington Fayette Urban County Government and Fayette County Public schools will have a kick off ceremony. Secretary Wilcher will be there and is looking at what is going on in Lexington and Louisville to be able to leverage this with the other state universities to extend environmental education.

With no further business, the meeting adjourned at 4:05 p.m.

Signed Lindell Ormsbee, Chair

Date